

**REMARKS/ARGUMENTS**

The Office Action mailed February 18, 2004 has been reviewed and carefully considered. Claim 13 has been amended. Claims 1-20 are pending in this application, with claims 1 and 14 being the only independent claims. Reconsideration of the above-identified application, as herein amended and in view of the following remarks, is respectfully requested.

In the Office Action mailed February 18, 2004, claim 13 is objected to as containing a minor informality. Claim 13 refers to steps (a) - (f). However, the base claim on which claim 13 depends includes only steps (a) - (e). Claim 13 has now been amended to recite steps (a) - (e). In view of the amendments, the claim objection should now be withdrawn.

Claims 1-20 stand rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,681,099 (Keranen).

Before discussing the cited prior art and the Examiner's rejections of the claims in view of that art, a brief summary of the present invention is appropriate. The present invention relates to a network based system and method for determining a location of a User Equipment (UE) in CDMA networks. According to the present invention, a request is made for determining UE location (page 6, lines 8-10). In response, a Radio Network (RNC) determines a value of the transmission timing difference of the UE (page 6, line 14-16). An RTT is then measured for connected transceiver node in active communication with the UE (page 6, lines 14-16). After that, the RTT is determined for at least one other transceiver which is not connected to the UE (page 6, lines 16-17 and page 11, line 19 to page 12, line 3). When the distance of the UE from the connected node and at least two other node is determined, the positions of all three nodes are known and the position of the UE may be determined, for example by calculating the intersection of circles

around the three known locations, where the radii of the circles are the distance from the respective transceiver nodes (page 12, lines 3-7).

Independent claim 1 recites step (c) of "measuring a round trip time of a radio signal between at least one other transceiver node and the user equipment, wherein the at least one other transceiver node is not connected to the user equipment". Independent claim 14 similarly recites means for "determining a round trip time between the user equipment and at least one other non-connected transceiver node which is not in communication with the user equipment".

Keranen discloses a method of calculating true round trip propagation delay and User Equipment Location. Col 3, lines 55-61 of Keranen disclose that a Round Trip Time (RTT) between a UE and at least three transceiver cells may be determined by transmitting a predetermined frame in a downlink (DL) to the UE from at least three transceiver cells to which the UE responds with a predetermined frame in uplink (UL) transmission. Since the transceiver cells are required to send a DL transmission to the UE, each of the transceiver cells is required to be connected to, i.e., in active communication with, the UE. As stated on page 5, lines 5-11 of the present specification, the requirement of more than one transceiver node in active communication with the UE is disadvantageous. Page 11, line 19 to page 12, line 3 of the present specification disclose how the distance can be determined using one active node and other nodes which are not in active communication with the UE.

The Examiner states that col. 4, lines 63-67, of Keranen discloses step (c) of independent claim 1. That portion of Keranen states that the Location Service (LCS) server 15 may be anywhere in the network or may be in another network. However, the LCS server 15 is not a transceiver node in communication with the UE. Rather, the LCS server 15 is a server which can be

connected anywhere in the network and receives information about the distance between the UE and each node, and the location of each node to determine the location of the UE. Therefore, this section of Keranen fails to disclose that RTT measurements are made for a transceiver node that is not connected to user equipment, as expressly recited in independent claims 1 and 14.

In view of the above remarks, independent claims 1 and 14 are not anticipated by Keranen under 35 U.S.C. §102. Furthermore, since Keranen fails to teach or suggest using RTT measurements for transceiver nodes that are not connected, independent claims 1 and 14 are also allowable over Keranen under 35 U.S.C. §103.

Dependent claims 2-13 and 15-20, each being dependent on one of independent claims 1 and 14, are deemed allowable for the same reasons expressed above with respect to independent claims 1 and 14.

Furthermore, dependent claim 6 recites "comparing a time-of-arrival of an uplink transmission from said UE at the non-connected transceiver nodes to the time-of-arrival of the uplink transmission at the connected transceiver node, and determining the propagation time of each of the non-connected transceiver nodes therefrom." The Examiner states that this is disclosed at col. 5, lines 5-25 of Keranen. However, that portion of Keranen specifically pertains to each active node B (see col. 5, line 14). The Examiner states that the explanation on page 4 of the Office Action explains how this relates to non-connected nodes. However, the explanation relates to handoffs to new base stations and does not disclose any steps for determining UE location. Furthermore, this section does not disclose the above step recited in claim 6 because the Examiner explains on page 4 of the Office Action that the mobile searches for a control channel from a base station that provides a timing reference. This indicates that a connection is

made. Accordingly, dependent claim 6 is not anticipated by Keranen for at least these additional reasons.

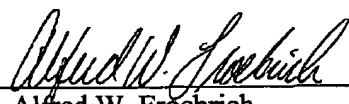
The application is now deemed to be in condition for allowance and notice to that effect is solicited.

It is believed that no fees or charges are required at this time in connection with the present application. However, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

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